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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/760,610

01/20/2004

Mark Jeffrey Smith

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HOUSTON, TX 77092

EXAMINER

NGUYEN, TOAN D

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

08/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/760,610

Applicant(s)

SMITH, MARK JEFFREY

Examiner

Toan D. Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/25/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because figure 4 and figure 5 need legend. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 lines 24-25, it is unclear as to what is meant by "communicating the signal from the second antenna to a second radio transceiver and then to a second radio processor card than then to a client device."

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-5, 7-13, 15, and 18-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore, Jr. et al. (US 7,035,270) in view of Chang et al. (US 2003/0033608) further in view of Hopkins et al. (US 5,737,194).

As far as understood with respect to claims 1, and 7-10, Moore, Jr. et al. disclose home networking gateway, comprising the steps of:

- a. a bidirectional high speed data modem (figure 2, reference 30) with a first radio transceiver, a first radio processor card (figure 2, reference 50), and a switching power supply (figure 2, reference 60) to a supporting cable strand, wherein the supporting cable strand simultaneously supports a coaxial cable carrying an RF spectrum signal and an AC power signal (col. 3 line 53 to col. 4 line 65);
- d. generating a digital Ethernet signal from the bidirectional high speed data modem/router to the first radio processor card (col. 3 lines 56-64);
- g. communicating the digital Ethernet signal from the first radio processor card to

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the first radio transceiver and then to the first antenna (col. 4 lines 13-57);

- h. beaming the signal from the first antenna to a second antenna; and
- i. communicating the signal from the second antenna to a second radio transceiver and then to a second radio processor card than then to a client device (col. 4 lines 13-57).

However, Moore, Jr. et al. do not expressly disclose:

- b. using a splitter to engage the coaxial cable and split the RF spectrum signal from the AC power;
- c. transmitting the RF spectrum signal from the splitter into the bidirectional high speed data modem/router and the AC power to the switching power supply;
- e. converting the AC power to DC power with the switching power supply and stepping down the voltage with the switching power supply; and
- f. using power from the switching power supply to run the bidirectional high speed data modern/router, the first radio transceiver, the first radio processor card, and at least one heating or cooling device adapted to heat or cool the contents of the housing.

In an analogous art, Chang et al. disclose using a splitter (figure 3, reference 310) to engage the coaxial cable and split the RF spectrum signal from the AC power;

transmitting the RF spectrum signal from the splitter into the bidirectional high speed data modem/router and the AC power to the switching power supply (page 2, paragraph [0029]).

One skilled in the art would have recognized the splitter, and would have applied Chang et al.'s splitter 310 in Moore, Jr. et al.'s home networking gateway 30. Therefore,

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it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Chang et al.'s BTI RF module with filtering in Moore, Jr. et al.'s home networking gateway with the motivation being to divide the line coupled to BTI drop interface 302 into a line coupled to the cable modem in the BTI (BTI CM) and the bypass line to the home interface 306 (page 2, paragraph [0029] lines 6-9).

Furthermore, Moore, Jr. et al. in view of Chang et al.'s do not expressly disclose a housing containing converting the AC power to DC power with the switching power supply and stepping down the voltage with the switching power supply; and

using power from the switching power supply to run the bidirectional high speed data modem/router, the first radio transceiver, the first radio processor card, and at least one heating or cooling device adapted to heat or cool the contents of the housing.

In an analogous art, Hopkins et al. disclose a housing containing converting the AC power to DC power with the switching power supply and stepping down the voltage with the switching power supply; and

using power from the switching power supply to run the bidirectional high speed data modem/router, the first radio transceiver, the first radio processor card, and at least one heating or cooling device adapted to heat or cool the contents of the housing (Abstract and col. 5 lines 47-60).

Hopkins et al. disclose wherein the housing is formed of a material comprising molded plastic, a metal, a composite material, weatherproof sealed coated laminate or combinations thereof (Abstract as set forth in claim 7), wherein the housing further comprises a bidirectional high speed data modem disposed in parallel communication

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with a bidirectional high speed processor card and transceiver (Abstract as set forth in claim 8), wherein the bidirectional high speed data modem is connected to the strand independent of connection to a utility pole (Abstract as set forth in claim 9), and wherein housing further comprises a detector for detecting a first location of the client device (Abstract as set forth in claim 10).

One skilled in the art would have recognized the a housing containing converting the AC power to DC power with the switching power supply and stepping down the voltage with the switching power supply; and using power from the switching power supply to run the bidirectional high speed data modern/router, the first radio transceiver, the first radio processor card, and at least one heating or cooling device adapted to heat or cool the contents of the housing, and would have applied Hopkins et al.'s gateway in Moore, Jr. et al.'s home networking gateway 30. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Hopkins et al.'s input/output module gateway in Moore, Jr. et al.'s home networking gateway with the motivation being to provide an input/output module functioning as a peripheral channel adapter or gateway to a network in a high speed digital processing system (see Abstract).

For claim 4, Moore, Jr. et al. disclose wherein the bidirectional high speed data modem is a data over cable system interface specification (DOCSIS) modem (col. 3 line 67 to col. 4 line 2).

For claim 5, Moore, Jr. et al. disclose wherein the DOCSIS modem/router has a functionality consisting of automatic registration, encryption, and automatic assignment of IP addresses (col. 3 line 67 to col. 4 line 2).

For claim 11, Moore, Jr. et al. disclose wherein the modem is a router (col. 3 lines 37-38).

For claims 12-13, 15, 20-23, and 25-28, Moore, Jr. et al. disclose home networking gateway, comprising the steps of:

- a. a bidirectional high speed data modem (figure 2, reference 30) with a first radio transceiver, a first radio processor card (figure 2, reference 50), and a switching power supply (figure 2, reference 60) to a supporting cable strand, wherein the supporting cable strand simultaneously supports a coaxial cable carrying an RF spectrum signal and an AC power signal (col. 3 line 53 to col. 4 line 65);
- d. generating a digital Ethernet signal from the bidirectional high speed data modem/router to the first radio processor card (col. 3 lines 56-64);
- g. communicating the digital Ethernet signal from the first radio processor card to the first radio transceiver and then to the first antenna (col. 4 lines 13-57);
- h. beaming the signal from the first antenna to at least one of the plurality of electronic devices comprising the radio transceiver (col. 4 lines 13-57).

However, Moore, Jr. et al. do not expressly disclose:

- b. using a splitter to engage the coaxial cable and split the RF spectrum signal from the AC power;

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- c. transmitting the RF spectrum signal from the splitter into the bidirectional high speed data modem/router and the AC power to the switching power supply;
- e. converting the AC power to DC power with the switching power supply and stepping down the voltage with the switching power supply; and
- f. using power from the switching power supply to run the bidirectional high speed data modem/router, the first radio transceiver, the first radio processor card, and at least one heating or cooling device adapted to heat or cool the contents of the housing.

In an analogous art, Chang et al. disclose using a splitter (figure 3, reference 310) to engage the coaxial cable and split the RF spectrum signal from the AC power; transmitting the RF spectrum signal from the splitter into the bidirectional high speed data modem/router and the AC power to the switching power supply (page 2, paragraph [0029]).

One skilled in the art would have recognized the splitter, and would have applied Chang et al.'s splitter 310 in Moore, Jr. et al.'s home networking gateway 30. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Chang et al.'s BTI RF module with filtering in Moore, Jr. et al.'s home networking gateway with the motivation being to divide the line coupled to BTI drop interface 302 into a line coupled to the cable modem in the BTI (BTI CM) and the bypass line to the home interface 306 (page 2, paragraph [0029] lines 6-9).

Furthermore, Moore, Jr. et al. in view of Chang et al.'s do not expressly disclose a housing containing converting the AC power to DC power with the switching power supply and stepping down the voltage with the switching power supply; and

using power from the switching power supply to run the bidirectional high speed data modem/router, the first radio transceiver, the first radio processor card, and at least one heating or cooling device adapted to heat or cool the contents of the housing.

In an analogous art, Hopkins et al. disclose a housing containing converting the AC power to DC power with the switching power supply and stepping down the voltage with the switching power supply; and

using power from the switching power supply to run the bidirectional high speed data modem/router, the first radio transceiver, the first radio processor card, and at least one heating or cooling device adapted to heat or cool the contents of the housing (Abstract and col. 5 lines 47-60).

Hopkins et al. disclose wherein the housing is formed of a material comprising molded plastic, a metal, a composite material, weatherproof sealed coated laminate or combinations thereof (Abstract as set forth in claim 20), wherein the housing further comprises a bidirectional high speed data modem disposed in parallel communication with a bidirectional high speed processor card and transceiver (Abstract as set forth in claim 21), wherein the bidirectional high speed data modem is connected to the strand independent of connection to a utility pole (Abstract as set forth in claim 22), and wherein housing further comprises a detector for detecting a first location of the client device (Abstract as set forth in claim 23).

One skilled in the art would have recognized the a housing containing converting the AC power to DC power with the switching power supply and stepping down the voltage with the switching power supply; and using power from the switching power

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supply to run the bidirectional high speed data modem/router, the first radio transceiver, the first radio processor card, and at least one heating or cooling device adapted to heat or cool the contents of the housing, and would have applied Hopkins et al.'s gateway in Moore, Jr. et al.'s home networking gateway 30. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Hopkins et al.'s input/output module gateway in Moore, Jr. et al.'s home networking gateway with the motivation being to provide an input/output module functioning as a peripheral channel adapter or gateway to a network in a high speed digital processing system (see Abstract).

For claim 18, Moore, Jr. et al. disclose wherein the bidirectional high speed data modem is a data over cable system interface specification (DOCSIS) modem (col. 3 line 67 to col. 4 line 2).

For claim 19, Moore, Jr. et al. disclose wherein the DOCSIS modem/router has a functionality consisting of automatic registration, encryption, and automatic assignment of IP addresses (col. 3 line 67 to col. 4 line 2).

For claim 24, Moore, Jr. et al. disclose wherein the modem is a router (col. 3 lines 37-38).

5. Claims 2-3, 6, 14, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore, Jr. et al. (US 7,035,270) in view of Chang et al. (US 2003/0033608) and Hopkins et al. (US 5,737,194) further in view of Mikhak (US 7,149,474).

For claims 2-3, 6, 14, and 16-17, Moore, Jr. et al. in view of Chang et al. and Hopkins et al. do not expressly disclose wherein the bidirectional high speed data modem communicates with a Wide Area network ("WAN") connection. In an analogous art, Mikhak discloses wherein the bidirectional high-speed data modem communicates with a Wide Area network ("WAN") connection (col. 10 line 34).

Mikhak discloses wherein the bidirectional high speed data modem wirelessly communicates with a Local Area network ("LAN") connection (col. 10 line 33 as set forth in claim 3), wherein the client device comprises a computer, a local area network (LAN), a network hub, a remote terminal unit for monitoring remote equipment, a digital camera, a fax, a phone, an Ethernet switch, a router or combinations thereof (figure 1, reference 104, col. 5 lines 24-26 as set forth in claim 6), wherein the electronic device is a laptop, PC computer, personal digital assistant (PDA), personal electronic devices communicating with satellites, cell phones, GPS location devices, or other mobile electronic devices that can interface to networks (figure 1, reference 104, col. 5 lines 24-26 as set forth in claim 14), wherein the bidirectional high speed data modem communicates with a Wide Area network ("WAN") connection (col. 10 line 34 as set forth in claim 16), and wherein the bidirectional high speed data modem/router wirelessly communicates with a Local Area network ("LAN") connection (col. 10 line 33 as set forth in claim 17).

One skilled in the art would have recognized the wherein the bidirectional high speed data modem communicates with a Wide Area network ("WAN") connection, and would have applied Mikhak's network gateway in Moore, Jr. et al.'s home networking

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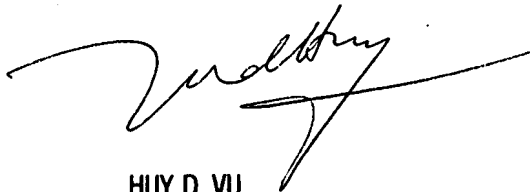
gateway 30. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Mikhak's wireless cable replacement system in Moore, Jr. et al.'s home networking gateway with the motivation being transported voice over packet based networks (col. 10 lines 29-34).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D. Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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